

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/586, 998A
Source: JFWO
Date Processed by STIC: 3/26/2007

ENTERED



IFWO

RAW SEQUENCE LISTING

DATE: 03/26/2007

PATENT APPLICATION: US/10/586,998A

TIME: 15:27:08

Input Set : N:\efs\03_26_07\10586998A_efs\313866SequenceListing.txt

Output Set: N:\CRF4\03262007\J586998A.raw

```

5 <110> APPLICANT: Icon Genetics AG
7     Marillonnet, Sylvestre
9     Thoeringer, Carola
11    Klimyuk, Victor
13    Gleba, Yuri
17 <120> TITLE OF INVENTION: Two-component RNA virus-derived plant expression system
21 <130> FILE REFERENCE: 049202/313866
25 <140> CURRENT APPLICATION NUMBER: US 10/586,998A
C--> 27 <141> CURRENT FILING DATE: 2006-07-21
31 <150> PRIOR APPLICATION NUMBER: EP 04 001 460
33 <151> PRIOR FILING DATE: 2004-01-23
37 <160> NUMBER OF SEQ ID NOS: 20
41 <170> SOFTWARE: PatentIn version 3.1
45 <210> SEQ ID NO: 1
47 <211> LENGTH: 124
49 <212> TYPE: DNA
51 <213> ORGANISM: Artificial Sequence
55 <220> FEATURE:
57 <223> OTHER INFORMATION: chemically synthesized
59 <400> SEQUENCE: 1
60 gtaaattcctg gtccacactt ttacgataaa aacacaagat tttaaactat gaactgatca      60
62 ataattcattc ctaaaagacc acacttttgt ttgttttcta aagtaatttt tactgtttata      120
64 acag                                          124
67 <210> SEQ ID NO: 2
69 <211> LENGTH: 136
71 <212> TYPE: DNA
73 <213> ORGANISM: Artificial Sequence
77 <220> FEATURE:
79 <223> OTHER INFORMATION: chemically synthesized
81 <400> SEQUENCE: 2
82 gtaagaggtc aaaagggttc cgcaatgata cctctttttt tgtttctcta gtttcaagaa      60
84 ttgggtata tgactaactt ctgagtgttc cttgatgcat atttgtgatg agacaaatgt      120
86 ttgttctatg ttttag                                          136
89 <210> SEQ ID NO: 3
91 <211> LENGTH: 150
93 <212> TYPE: DNA
95 <213> ORGANISM: Artificial Sequence
99 <220> FEATURE:
101 <223> OTHER INFORMATION: chemically synthesized
103 <400> SEQUENCE: 3
104 gtaagttctg catttggtta tgctccttgc attttaggtg ttcgtcgttc ttccatttcc      60
106 atgaatagct aagatttttt ttctctgcat tcattcttct tgcctcagtt ctaactgttt      120
108 gtggtatttt tgttttaatt attgctacag                                          150

```

RAW SEQUENCE LISTING

DATE: 03/26/2007

PATENT APPLICATION: US/10/586,998A

TIME: 15:27:08

Input Set : N:\efs\03_26_07\10586998A_efs\313866SequenceListing.txt

Output Set: N:\CRF4\03262007\J586998A.raw

```

111 <210> SEQ ID NO: 4
113 <211> LENGTH: 121
115 <212> TYPE: DNA
117 <213> ORGANISM: Artificial Sequence
121 <220> FEATURE:
123 <223> OTHER INFORMATION: chemically synthesized
125 <400> SEQUENCE: 4
126 gtaaagcaac tgtgttttaa tcaatttctt gtcaggatat atggattata acttaatttt      60
128 tgagaaatct gtagtatttg gcgtgaaatg agtttgcttt ttggtttctc ccgtgttata      120
130 g                                                                           121
133 <210> SEQ ID NO: 5
135 <211> LENGTH: 136
137 <212> TYPE: DNA
139 <213> ORGANISM: Artificial Sequence
143 <220> FEATURE:
145 <223> OTHER INFORMATION: chemically synthesized
147 <400> SEQUENCE: 5
148 gtaaagtttc caactttcct ttaccatata aaactaaagt tcgaaacttt ttatttgatc      60
150 aacttcaagg ccacccgatc tttctattcc tgattaattt gtgatgaatc catattgact      120
152 ttgatgggtt acgcag                                                                           136
155 <210> SEQ ID NO: 6
157 <211> LENGTH: 121
159 <212> TYPE: DNA
161 <213> ORGANISM: Artificial Sequence
165 <220> FEATURE:
167 <223> OTHER INFORMATION: chemically synthesized
169 <400> SEQUENCE: 6
170 gtctgtcttt cctatttcat atgtttaatc ctaggaattt gatcaattga ttgtatgtat      60
172 gtcgatccca agactttctt gttcacttat atcttaactc tctctttgct gtttcttgca      120
174 g                                                                           121
177 <210> SEQ ID NO: 7
179 <211> LENGTH: 159
181 <212> TYPE: DNA
183 <213> ORGANISM: Artificial Sequence
187 <220> FEATURE:
189 <223> OTHER INFORMATION: chemically synthesized
191 <400> SEQUENCE: 7
192 gtaaaatatt ggatgccaga cgatattctt tcttttgatt tgtaactttt tcctgtcaag      60
194 gtcgataaat tttatttttt ttggtaaaag gtcgataatt tttttttgga gccattatgt      120
196 aattttccta attaactgaa ccaaaattat acaaaccag                                                                           159
199 <210> SEQ ID NO: 8
201 <211> LENGTH: 109
203 <212> TYPE: DNA
205 <213> ORGANISM: Artificial Sequence
209 <220> FEATURE:
211 <223> OTHER INFORMATION: chemically synthesized
213 <400> SEQUENCE: 8
214 gtaaggactt ctcatgaata ttagtggcag attagtgttg ttaaagtctt tggttagata      60
216 atcgatgcct cctaattgtc catgttttac tggttttcta caattaaag                                                                           109

```

RAW SEQUENCE LISTING

DATE: 03/26/2007

PATENT APPLICATION: US/10/586,998A

TIME: 15:27:08

Input Set : N:\efs\03_26_07\10586998A_efs\313866SequenceListing.txt

Output Set: N:\CRF4\03262007\J586998A.raw

```

219 <210> SEQ ID NO: 9
221 <211> LENGTH: 117
223 <212> TYPE: DNA
225 <213> ORGANISM: Artificial Sequence
229 <220> FEATURE:
231 <223> OTHER INFORMATION: chemically synthesized
233 <400> SEQUENCE: 9
234 gtgagttcct aagttccatt tttttgtaat ctttcaatgt tattttaact tttcagatca      60
236 acatcaaaat taggttcaat ttcatcaac caaataatat ttttcatgta tatatag      117
239 <210> SEQ ID NO: 10
241 <211> LENGTH: 158
243 <212> TYPE: DNA
245 <213> ORGANISM: Artificial Sequence
249 <220> FEATURE:
251 <223> OTHER INFORMATION: chemically synthesized
253 <400> SEQUENCE: 10
254 gtaagttttt ccactttaag aaaattacta gcactaaatt tacgaatttt aactatacaa      60
256 ttatggatgt aaccaccatt tttaaattaat cttgaaccag acgatatgga ttacaaacat      120
258 tcttggttta atcggtggt tagctattgc atttgcag      158
261 <210> SEQ ID NO: 11
263 <211> LENGTH: 130
265 <212> TYPE: DNA
267 <213> ORGANISM: Artificial Sequence
271 <220> FEATURE:
273 <223> OTHER INFORMATION: chemically synthesized
275 <400> SEQUENCE: 11
276 gtaaggattt ttatgatata gtatgcttat gtattttgta ctgaaagcat atcctgcttc      60
278 attgggatat tactgaaagc atttaactac atgtaaactc acttgatgat caataaactt      120
280 gattttgcag      130
283 <210> SEQ ID NO: 12
285 <211> LENGTH: 126
287 <212> TYPE: DNA
289 <213> ORGANISM: Artificial Sequence
293 <220> FEATURE:
295 <223> OTHER INFORMATION: chemically synthesized
297 <400> SEQUENCE: 12
298 gtaagccatc ttctgctta tttttataat gaacatagaa ataggaagtt gtgcagagaa      60
300 actaattaac ctgactcaaa atctaccctc ataattgttg tttgatattg gtcttgtatt      120
302 ttgcag      126
305 <210> SEQ ID NO: 13
307 <211> LENGTH: 301
309 <212> TYPE: DNA
311 <213> ORGANISM: Artificial Sequence
315 <220> FEATURE:
317 <223> OTHER INFORMATION: chemically synthesized
319 <400> SEQUENCE: 13
320 cggacgatac gtgatccacc atgatagagg agccattgtg tattacgac cgcttaaact      60
322 aatatctaag ctcggtgca agcacatcag agacgtcgtg cacttagaag agttacgcga      120
324 gtctttgtgc gacgtagcta gtaacttgaa caactgcgcc tacttctcac agtttagatga      180

```

RAW SEQUENCE LISTING

DATE: 03/26/2007

PATENT APPLICATION: US/10/586,998A

TIME: 15:27:08

Input Set : N:\efs\03_26_07\10586998A_efs\313866SequenceListing.txt

Output Set: N:\CRF4\03262007\J586998A.raw

```

326 ggccggttgct gaggtccaca agactgcggt cggaggctcc ttcgcgttct gtagcatcat      240
328 caaatacttg tcagacaaga ggctgttcag ggacctgttc ttcgtctgag ttgacgaatt      300
330 c                                                                    301
333 <210> SEQ ID NO: 14
335 <211> LENGTH: 538
337 <212> TYPE: DNA
339 <213> ORGANISM: Artificial Sequence
343 <220> FEATURE:
345 <223> OTHER INFORMATION: chemically synthesized
347 <400> SEQUENCE: 14
348 ccatggacaa agtgataaag gcagcttttt gtggagacga tagcctgatt tacattccta      60
350 aaggtttaga cttgcctgat attcaggcgg gcgcgaacct catgtggaac ttcgaggcca      120
352 aactcttcag gaagaagtat gggtacttct gtggtcgtta tgttattcac catgatagag      180
354 gagccattgt gtattacgat ccgcttaaac taatatctaa gttaggttgt aaacatatta      240
356 gagatgttgt tcacttagaa gagttacgcy agtctttgtg tgatgtagct agtaacttaa      300
358 ataattgtgc gtatttttca cagtttagat aggcggttgc cgaggttcat aagaccgcgg      360
360 taggcggttc gtttgccttt tgtagtataa ttaagtattt gtcagataag agattgttta      420
362 gagatttggt ctttgtttga taatgtcgat agtctcgtag gaacctaaag tgagtgattt      480
364 cctcaatctt tcgaagaagg aagagatctt gccgaaggct ctaacgaggt tagaattc      538
367 <210> SEQ ID NO: 15
369 <211> LENGTH: 636
371 <212> TYPE: DNA
373 <213> ORGANISM: Artificial Sequence
377 <220> FEATURE:
379 <223> OTHER INFORMATION: chemically synthesized
381 <400> SEQUENCE: 15
382 ggagataacc tgagcttctt cttccataat gagagcactc tcaattacac ccacagcttc      60
384 agcaacatca tcaagtacgt gtgcaagacg ttcttccctg ctagtcaacg cttcgtgtac      120
386 cacaaggagt tcttggtcac tagagtcaac acttggtact gcaagttcac gagagtggat      180
388 acgttcactc tgttccgtgg tgtgtaccac aacaatgtgg attgcaaga gttttacaag      240
390 gctatggacg atgcgtggca ctacaaaaag acgttagcaa tgcttaatgc cgagaggacc      300
392 atcttcaagg ataacgctgc gttaaacttt tggttcccca aagtgagaga catggttatc      360
394 gtccctctct ttgacgcttc tatcacaact ggtaggatgt ctaggagaga gggttatggtg      420
396 aacaaggact tgcgtctacac ggtcctaaat cacatcaaga cctatcaagc taaggcactg      480
398 acgtacgcaa acgtgctgag cttcgtggag tctattaggt ctagagtcac aattaacggt      540
400 gtcactgcca ggtctgaatg ggacacagac aaggcaattc taggtccatt agcaatgaca      600
402 ttcttctga tcacgaagct gggtcatgtg caagat                                636
405 <210> SEQ ID NO: 16
407 <211> LENGTH: 297
409 <212> TYPE: DNA
411 <213> ORGANISM: Artificial Sequence
415 <220> FEATURE:
417 <223> OTHER INFORMATION: chemically synthesized
419 <400> SEQUENCE: 16
420 ggcggacgata cgtgatccac catgatagag gagccattgt gtattacgat ccgcttaaac      60
422 taatatctaa gctcggctgc aagcacatca gagacgtcgt gcacttagaa gagttacgcy      120
424 agtctttgtg cgacgtagct agtaacttga acaactgcgc ctacttctca cagtttagatg      180
426 aggcggttgc tgagggtccac aagactgcgg tcggaggctc cttcgcgttc tgtagcatca      240
428 tcaaatactt gtcagacaag aggcgtgttc gggacctgtt cttcgtctga gttgacg      297

```

RAW SEQUENCE LISTING

DATE: 03/26/2007

PATENT APPLICATION: US/10/586,998A

TIME: 15:27:08

Input Set : N:\efs\03_26_07\10586998A_efs\313866SequenceListing.txt

Output Set: N:\CRF4\03262007\J586998A.raw

431 <210> SEQ ID NO: 17
 433 <211> LENGTH: 1419
 435 <212> TYPE: DNA
 437 <213> ORGANISM: Artificial Sequence
 441 <220> FEATURE:
 443 <223> OTHER INFORMATION: genetically engineered sequence containing fragment derived
 from

444 Arabidopsis thaliana

446 <400> SEQUENCE: 17

```

447 cccgagctat actgtacctt cgccgaccga ttggtactac agtacaagaa ggcggaggag      60
449 ttccaatcgt gtgatctttc caaacctcta gaagagtcag agaagtacta caacgcatta      120
451 tccgagctat cagtgccttga gaatctcgac tcttttgact tagaggcggt taagacttta      180
453 tgtcagcaga agaatgtgga cccggatatg gcagcaaagg taaatcctgg tccacacttt      240
455 tacgataaaa acacaagatt ttaaactatg aactgatcaa taatcattcc taaaagacca      300
457 cacttttggt ttgtttctaa agtaattttt actgttataa caggtggctg tagcaatcat      360
459 gaagtcagaa ttgacgttgc ctttcaagaa acctacagaa gaggaatct cggagtcgct      420
461 aaaaccagga gaggggtcgt gtgcagagca taaggaaagt ttgagcttac aaaatgatgc      480
463 tccgttcccg tgtgtgaaaa atctagttga aggttccgtg cggcgctatg gaatgtgtcc      540
465 taagggtggt ggtttcgaca aattggatgt ggacattgct gatttccatc tcaagagtgt      600
467 agatgcagtt aaaaagggaa ctatgatgtc tgcggtgtac acagggtcta tcaaagttca      660
469 acaaatgaag aactacatag attacttaag tgcgtcgtg gcagctacag tctcaaacct      720
471 ctgcaaggta agaggtcaaa aggtttccgc aatgatccct ctttttttgt ttctctagtt      780
473 tcaagaattt gggatatatga ctaacttctg agtggttcct gatgcattt tgtgatgaga      840
475 caaatgtttg ttctatgttt taggtgctta gagatgttca cggcgctgac ccagagtcac      900
477 aggagaaatc tggagtgtgg gatgttagga gaggacgttg gttacttaaa cctaatagcga      960
479 aaagtcacgc gtggggtgtg gcagaagacg ccaaccacaa gttggttatt gtgttactca      1020
481 actgggatga cggaaagccg gtttgtgatg agacatgggt caggggtggcg gtgtcaagcg      1080
483 attccttgat atattcggat atgggaaaac ttaagacgct cacgtcttgc agtccaaatg      1140
485 gtgagccacc ggagcctaac gccaaagtaa ttttggctga tgggtgtccc ggttgtggaa      1200
487 aaacgaagga gattatcgaa aaggtaagtt ctgcatttgg ttatgctcct tgcattttag      1260
489 gtgttcgtcg ctcttccatt tccatgaata gctaagattt tttttctctg cattcattct      1320
491 tcttgccctca gttctaactg tttgtggtat ttttgtttta attattgcta caggtaaact      1380
493 tctctgaaga cttgatttta gtccctggga aggaagcct      1419

```

496 <210> SEQ ID NO: 18

498 <211> LENGTH: 1159

500 <212> TYPE: DNA

502 <213> ORGANISM: Artificial Sequence

506 <220> FEATURE:

508 <223> OTHER INFORMATION: genetically engineered sequence containing fragment derived
 from

509 Arabidopsis thaliana

511 <400> SEQUENCE: 18

```

512 ctgcaggtaa aatattggat gccagacgat attctttctt ttgatttgta actttttcct      60
514 gtcaaggctg ataaatttta ttttttttgg taaaaggctg ataatttttt tttggagcca      120
516 ttatgtaatt ttccctaatta actgaaccaa aattatacaa accagggttg ctggaaaatt      180
518 tggttgcaat gatcaaaaga aacatgaatg cgccggattt gacagggaca attgacattg      240
520 aggatactgc atctctggtg gttgaaaagt tttgggattc gtatgttgac aaggaaattta      300
522 gtggaacgaa cgaaatgacc atgacaaggg agagcttctc caggtaagga cttctcatga      360
524 atattagtgg cagattagtg ttgttaaagt ctttggttag ataatcgatg cctcctaatt      420
526 gtccatgttt tactggtttt ctacaattaa aggtggcttt cgaaacaaga gtcattctaca      480
528 gttggtcagt tagcggactt taactttgtg gatttgccgg cagtagatga gtacaagcat      540

```

VERIFICATION SUMMARY

DATE: 03/26/2007

PATENT APPLICATION: US/10/586,998A

TIME: 15:27:09

Input Set : N:\efs\03_26_07\10586998A_efs\313866SequenceListing.txt

Output Set: N:\CRF4\03262007\J586998A.raw

L:27 M:271 C: Current Filing Date differs, Replaced Current Filing Date